

4 CAMERA WORK



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Todd Haynes's *Far from Heaven* (2002), cinematography by Edward Lachman

The first stage in developing the visual language of a film is performed by the production design team. The next major creative step involves camera work. Indeed the camera crew's fundamental role is to capture dynamically the design elements of the *mise-en-scène*. What is unique to cinema is that the camera positions us as viewers of the *mise-en-scène*, governing our perspective on a scene. This perspective, importantly, depends a lot on what we see and how the filmmaker has chosen to show it to us.

The cinematographer works with the director to design and execute the film's camera work. In addition to making lighting decisions (see chapter 3), cinematographers make choices about where to place and how to aim the camera, whether and how to move it through the scene, and what kind of lens and film stock to use. Camera work can be so subtle that we seem to be simply, casually, even uncritically watching the action on screen. Or it can be obvious, as the camera tilts off its axis, as it moves through the set to simulate the point of view of a character in the film, or as it shifts from live action to slow motion. But whether we notice the camera work or not, the camera is always *doing* something . . . and there are always reasons why. This is a key principle of film analysis, and one that we will explore in this chapter.

LEARNING OUTCOMES

After reading this chapter, you should be able to do the following:

- 4-1** Recognize and analyze the basics of camera placement: angle, distance, and framing.
- 4-2** Identify different types of camera movement and discuss their aesthetic and narrative significance.
- 4-3** Understand and detail the key aspects of focal length, depth of field, and selective focus.
- 4-4** Recognize the effects of film stock, speed, and exposure on the look of the film.

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MAKING MOVIES



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EDWARD LACHMAN ON CINEMATOGRAPHY

Edward Lachman is a cinematographer who has worked on more than fifty feature films. He is credited as the cinematographer or director of photography on such notable titles as *The Virgin Suicides* (Sofia Coppola, 1999), *Erin Brockovich* (Steven Soderbergh, 2000), *Far from Heaven* (Todd Haynes, 2002), and *A Prairie Home Companion* (Robert Altman, 2006). He won the prize for Best Cinematography for *Far from Heaven* at the Venice Film Festival, a film for which he also received an Oscar nomination.

Q1: What exactly does a cinematographer do?

A: We work with the director, the art director, and the wardrobe designer to create the style, the look, the feeling of the film. I've always believed that the image is the language of cinema, not words. I try to find the visual grammar and language.

Q2: Would you talk a little about the process from design to realization of your work?

A: When I get a script, I look for cues for how to tell the story. For me, I'm always looking for the point of view of the storyteller. Is it an objective point of view outside the world of the film, or is it a personal viewpoint within the story? It's then about the palette, the colors, and the way the camera sees the world through movement. I also consider the location. Every location gives me ideas about what the lighting could be. I want to find what's unique about a location or space or set and discover how I can approach that with light.

Q3: How do you feel about the increasing use of digital cameras?

A: Well, I'm from a different generation. I grew up with film. And my eye is trained with film. Some stories can be told digitally—documentaries, for example. But for the big screen I still get more satisfaction out of film. For me the difference between a chemical (film) image and an electronic (digital) image is that a piece of film responds to light like an etching. The digital chip that the image is photographed on is all one plane. And your lights and darks and colors are all on this one plane. I think that gives the image a feeling that has a certain flatness; it doesn't have the depth that, for me, film does. When you see a painting in a museum, you see the brush-strokes. When you see that image digitally you've lost that texture. When I photograph with film I see that depth.

Q4: Has your experience as a cinematographer enabled you to create a signature style? Or is your goal to create a unique style to fit each film?

A: Because my background was painting, I've always been interested in different styles. I always felt that each story could be told in its own language. I know there must be certain things—the way I use and understand color—but I really try to approach each film differently.

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4-1 CAMERA PLACEMENT

When William Heise and W. L. K. Dickson first shot films for the Edison Manufacturing Company and brothers Auguste and Louis Lumière first produced their own films at the end of the nineteenth century, about the only aesthetic decision these early filmmakers could make regarded camera placement. They worked with bulky fixed-lens cameras, and their films were limited to a single shot, with one load of the camera (often less than a minute). A brief look at their contrasting approaches offers a useful introduction into how camera placement functions.

The filmmakers working for Edison followed a fairly simple philosophy: each film was designed as a glimpse at (and for posterity, a recording of) a real, live event. Therefore, camera placement had a purely objective, documentary relationship to the subject at hand. The camera in early Edison films was routinely placed at a right angle to the action, as if it (and we) were in a theater audience seated front-row-center. In the 1896 film *Cockfight*, such a position was literalized; we watch the cocks fight through a wire cage, much as we might have if we were present at the live event (fig. 4.1). The irony here is that we are not witnessing a live event; indeed, unlike the Lumières brothers, who took their camera to the events they documented, Edison staged this and most of his other early films at his Black Maria studio.

For the 1896 film *The Kiss*, the Edison filmmakers again placed the camera at a 90-degree angle to the

action (fig. 4.2). The filmmakers paid little attention to dramatic staging; the action takes place against a flat black background, which was typical of portrait photographs of the time. This kiss, the first ever on film, was actually taken from a scene in a popular stage play, *The Widow Jones*, but it seemed at the time less like a dramatic moment from a fictional story than a documentary of a certain physical act. Indeed censors viewed the film as the nonfiction capture of an intimate act and so reviled the image that they called for a ban not only of this film but of the entire medium.

The Lumière brothers were also limited to a single load of the camera, a single mono-focus lens, and restrictions on camera movement, but they were from the start more interested than Edison in the dramatic potential of camera work. In their most famous short film, *L'arrivée d'un train* (*Arrival of a Train*, fig. 4.3), they positioned the camera at an acute angle and at eye level, as if it were a person waiting on the platform. This is no longer an objective camera, placing the viewer on the sidelines, but a subjective one, giving the viewer the sense of being in the scene.

As a result of choices regarding camera placement, these two early cinema pioneers created very different aesthetics and audience dynamics. Audiences for the Edison shorts tended to view the films as recorded live events to which they had been given privileged access. The Lumière brothers cleverly placed the filmgoer in the space of the film, prompting a moment of real drama.



4.1 We watch *Cockfight* (Edison, 1896) much as an attendee at the live event might have at the time, assuming he or she had a really good seat.



4.2 Placed in front of a flat, black background, the actors May Irwin and John Rice are captured in a style consistent with portrait photography. *The Kiss* (Edison, 1896).



▶ **4.3** Legend has it that early French filmgoers covered as the train seemed to come straight at them. *Arrival of a Train* (*L'arrivée d'un train*, Lumière brothers, 1896).

4-1a Angle

When we talk about the angle of a shot, we refer to the placement of the camera in relation to the subject and not the position of the subject of the shot. So, for example, a **low-angle shot** denotes a camera placed below the subject, pointing up. The reverse, a camera placed above the subject pointing down, produces a **high-angle shot**.

Low-angle shots tend to exaggerate size, especially for subjects placed relatively close to the camera. Filmmakers often use low angle to imply authority or to grant a character a semblance of gravitas or menace.



▶ **4.4** Anton Chigurh, a man with bad intentions, in Joel and Ethan Coen's *No Country for Old Men* (2007). The low-angle shot conveys an ominous tone.

low-angle shot A shot made by placing the camera below the subject, angled upward.

high-angle shot A shot made by placing the camera above the subject, angled downward.

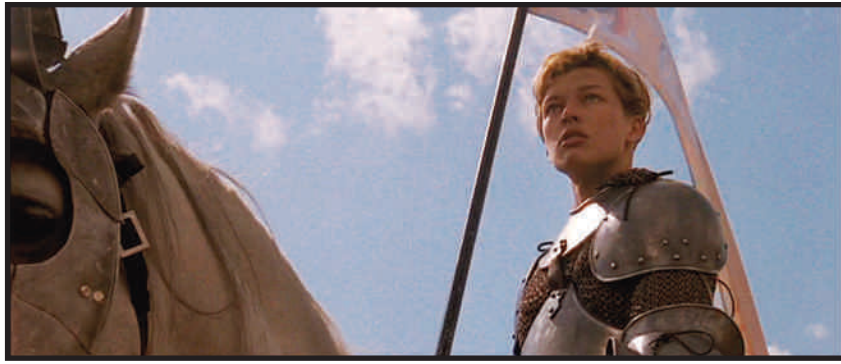


4.5 The director Orson Welles captures the actor Orson Welles in a distorting low-angle shot. The superficial ugliness of the image implies the true nature of the unscrupulous and unsavory character (*Touch of Evil*, 1958).

In the Coen brothers' *No Country for Old Men*, the hit man Anton Chigurh is repeatedly shot in low angle, systematically marking him as an intimidating, looming figure (fig. 4.4).

Low-angle images are often unflattering. Filmmakers occasionally use low angle, then, to depict something essentially unpleasant about a character. In *Touch of Evil*, the director Orson Welles cast himself as the corrupt police captain Hank Quinlan, who finds himself in a struggle with a squeaky-clean and handsome rival (a Mexican-born policeman named Vargas, played by the good-looking leading man Charlton Heston). Quinlan has, as his former lover points out, been “eating too many candy bars” (Welles wore a padded suit), and he has been drinking way too much, burying his sadness over his wife's death in excess. Welles uses low angle to create a grotesque image of a grotesque character, and he uses the physical ugliness exaggerated by the low-angle shot to infer the ugliness inside the tortured, racist policeman (fig 4.5).

Though low angle tends to be unflattering and thus is often connected with the monstrous or unsavory, it can also be used to confer authority, royalty, even divinity. In Luc Besson's epic *The Messenger: The Story of Joan of Arc*, Saint Joan's destiny—her inevitable leadership and her ascendance to heaven—is first marked in a series of low-angle shots as she rallies her followers (fig. 4.6). Her voice may crack as she gives instructions to the men—she is after all just a teenager—but the way she is shot against a cloud-dappled sky conveys an otherworldly authority.



4.6 A low-angle shot of the heroic Joan of Arc as she prepares to lead her followers in battle. *The Messenger: The Story of Joan of Arc* (Luc Besson, 1999).



4.7 The movie star Rita Hayworth in flattering high angle in Orson Welles's *The Lady from Shanghai* (1947).



4.8 A high-angle shot in *No Country for Old Men* confers insignificance and vulnerability. It also toys with aspects of scale: the seemingly small man, the big boats.

What made the fighting *men* of fifteenth century France follow a teenage girl into battle? What made them believe in this peasant girl's claims of divine inspiration? The answer to these questions can be found in

the simple but effective camera work that presents the legendary figure as "larger than life."

High-angle shots, on the other hand, tend to be more flattering, and they also tend to humanize in part because they diminish size and scale. If the camera puts on ten pounds, high angle tends to diminish that effect. This is why we often see high angle used to shoot attractive movie stars; it's a flattering visual style for folks used to flattery. In Orson Welles's *The Lady from Shanghai*, the movie star (and the director's soon-to-be ex-wife) Rita Hayworth gets the full-star treatment in a beautifully lit high-angle shot (fig. 4.7).

High angle is also used to manipulate scale within the shot. While low angle exaggerates the size of figures against the background, a high-angle shot dwarfs them. We can see how this works by looking at a high-angle shot from *No Country for Old Men*, with the same basic content as the low-angle image discussed previously: a character standing in front of a store with a prominent sign. The hired gun, captured in low angle in figure 4.4, looms large and thus appears menacing, his intentions ominous. The high-angle image in figure 4.8 dwarfs its subject, who seems captured in the crosshairs of an assassin's gaze (simulated by high angle looking down on him). High angle here signals the subject's seeming (in)significance and also his vulnerability.

High angle, which can provide a bird's-eye view of a scene (fig. 4.8), was a popular technique for shooting song and dance numbers in musicals of the 1930s. This use of high angle, made famous by the choreographer-director Busby Berkeley, presented vertiginous, kaleidoscopic images of perfectly synchronized dance routines (fig. 4.9).

What is most interesting about the high-angle shots in early musicals like *42nd Street* is how they positioned the audience, reproducing the point of view of someone seated in the balcony peering down at the stage. Such a camera point of view highlighted the qualities of performance and artifice, leaving little doubt that what we are watching is essentially a performance.

While such an emphasis on performance fits movie musicals, dramatic films often depend on the impression



4.9 One of Busby Berkeley's perfectly synchronized production numbers in the 1933 musical *42nd Street* (Lloyd Bacon).

that what we are watching is unfolding naturally before our eyes. To create such an impression, filmmakers can employ the **eye-level shot**. Eye-level shots imply a connection between the viewer and the characters on screen, with whom we share a space and into whose eyes we can directly peer. Take for example a pivotal scene in *On the Waterfront*, in which the two brothers, the mobster Charlie the Gent (at left in fig. 4.10) and the former boxer and disgruntled dockworker Terry Malloy, discuss what might have been had Charlie not forced Terry to throw his most important fight. The speech made by the normally inarticulate Terry—"I coulda been a contender. I coulda been somebody, instead of a bum, which is what I am, let's face it"—is all the more poignant because we can scan Terry's wounded face.

Camera angles can be used to affect our experience of a film in subtle ways. But there are occasions when the angle of a shot is so strange, so crucial to the image

eye-level shot A shot made by placing the camera at eye level with the subject.

canted shot A shot made by tilting the camera at an angle on the subject.

long shot A shot that includes the entire person and background or a shot where the subject appears relatively small. Variations include the **extreme long shot** and the **medium long shot**, a shot of a person from the subject's knees up or a shot where the subject is slightly smaller than a medium shot.

medium shot A shot of a person from the waist up, or a shot where the scale of the subject is of moderate size.

close-up A shot of a person's face, or any shot that offers a detail of the subject. Variations include the **medium close-up** (usually face and chest) and the **extreme close-up**.



4.10 Charlie (left) and Terry (right) Malloy ponder the past in Elia Kazan's *On the Waterfront* (1954). The director's emphasis on natural, organic performances required an unobtrusive visual style, as in this simple but effective eye-level shot.

itself, that we must not miss its significance. Take for example the unusual camera angles used in a key scene in the teen melodrama *Rebel without a Cause*. Jim has just come home after the disastrous "chickie run" in which a rival teenager has died accidentally driving a car off a cliff. Jim wants advice, but his father and mother are not up to the task. First we see Jim in high angle, looking up at the ceiling (fig. 4.11).

Then we see what he sees: his mother. And we see how he sees her: upside down (fig. 4.12). Here the camera angle offers a commentary on the action that is hard to miss or misread: Jim feels like he is living in a world turned upside down (in which wrong is right and right is wrong). As his mother descends the stairs, the camera angle continues to rotate from upside down to right side up. During this camera move, the image is serially **canted**, a term used when the framing of images seems tipped to one side or another (fig. 4.13).

When analyzing the camera angles of a shot, then, the key is to understand and appreciate how camera position frames its subject and in doing so provides a point of view on the *mise-en-scène*. In a significant way, where the camera is and the angle at which it focuses on its subject governs the way we understand the story.

4-1b Distance

A second important aspect of camera placement is distance, that is, the distance of the camera from its subject. The designations are as follows: **extreme long shot**, **long shot**, **medium long shot**, **medium shot**, **medium close-up**, **close-up**, and **extreme close-up**.



4.11 A lonely teenager looking for answers. *Rebel without a Cause* (Nicholas Ray, 1955).



4.12 An upside-down world in which wrong is right and right is wrong.



4.13 An example of canted framing (also known as a Dutch-angle shot), as the image seems to be tipped to one side. The effect is used to simulate Jim's point of view as he rights himself and watches his mother descend the stairs.



The terminology used to delineate camera distance translates literally: an extreme long shot regards a camera placed a great distance from its subject. An extreme close-up denotes a camera placed extremely close to its subject.

The extreme long shot is often used to introduce a given space or place, which is called in the trade an **establishing shot**. When we get a look at the exterior of a building (often from a distance, thus the extreme long shot) and then see a scene played out in a room, we assume that the room is inside the building, even though in reality it might be on a soundstage on a studio lot.

The extreme long shot is also used to establish geographic setting, especially in movie westerns. Note how the extreme long shot renders the human figures small against the natural background in *The Searchers* (fig. 4.14). Director John Ford uses the shot to highlight the natural majesty of Monument Valley and to underscore the challenge it presents to the characters trying to “tame” such a vast and rugged land.

A long shot—in which the camera is closer to the subject than in the extreme long shot but still far enough away that the entire human body or other full figures are shown—might also be used to establish location, though that is not its only function. Long shots can be used in musicals to reproduce the dynamic of stage performance; the filmgoer is given a view of the action similar to what he or she would have in a theater (see fig. 4.9). Long shots are also used in fight sequences, especially in contemporary

establishing shot, also **master shot** A shot that orients the audience for the scene that follows.

4.14 An extreme long shot in *The Searchers* (John Ford, 1956).



4.15 The hero (screen right) and his nemesis face off in the climactic fight sequence in *Romeo Must Die* (Andrzej Bartkowiak, 2000).



4.16 Attack and parry . . . captured in a long shot.



4.17 A telling blow, again in long shot.

martial arts films in which hand-to-hand combat is choreographed like a dance sequence in a musical. In the climactic fight between the hero, played by Jet Li, and his nemesis in *Romeo Must Die*, the action is best captured in a series of long shots (figs. 4.15–4.17).

two-shot A shot with two people.

Directors often use long, medium long, or medium shots to frame a **two-shot** (a shot composed of two people in the frame). The difference between these types of shots is how much of the human figures we see. In a long shot we see the characters in full figure. In a medium long shot the characters are often cut off just below the waist (fig. 4.18) or are shown seated. The difference between the medium long and the medium shot is fairly subtle, especially if the figures in the frame are themselves small (which may depend on the type of lens used; more on that later in this chapter). The key here is that both the medium long and the medium shot are used frequently in filmmaking because they let viewers see what the characters *and* their surroundings look like. Because they lack the grandeur of long shots and the intimacy of close-ups, there is something natural or naturalistic about them.

Medium shots are meant to situate characters in an environment and/or in relation to other characters. As such they can be revealing and dramatic. In *Aguirre: The Wrath of God* (fig. 4.19), we see in a medium two-shot a conquistador in full armor and a native Indian playing a pan flute. The medium shot offers a glimpse at the conquistador's expression (a combination of disdain and bewilderment) and the musician caught up in his music. The background reveals the physical and cultural space between the two characters; it also suggests that one clearly belongs in the setting, and the other doesn't.

The medium close-up brings us close enough to the character to easily read his or her facial expression. In *Raiders of the Lost Ark*, the opening action sequence is set up by a medium close shot of Indiana Jones looking at a golden idol (fig. 4.20). We read a combination of worry and anticipation in his face, as if he knows something is going to happen, but he is not sure what. Because the camera has taken us close to Indiana Jones, we are caught up in his emotions.



4.18 A boy and his . . . Elliot and E.T. in a medium two-shot in *E.T.: The Extra-Terrestrial* (Steven Spielberg, 1982).



4.19 A conquistador tries to fathom a native Indian in the jungles of South America in a medium shot from Werner Herzog's *Aguirre: The Wrath of God* (*Aguirre, der Zorn Gottes*, 1972).



4.20 Indiana Jones in medium close-up. We are keenly aware of how he feels and what the idol means to him. *Raiders of the Lost Ark* (Steven Spielberg, 1981).

There is a story about the advent of the close-up that is worth telling here, though it may not be true: when the pioneering early cinema stylist D. W. Griffith first captured his characters in close-up, studio management groused, “We paid for the whole actor.” Griffith understood what these businessmen did not. In *Way Down East*, for example, as the heroine begins to suspect that her secret marriage may not have been “real,” though the baby inside her is, Griffith uses a close-up to show us what she’s feeling and thinking, and in doing so he presents the drama as hers (fig. 4.21). We read the scene and the dramatic situation with her welfare in mind.

On the big screen close-ups can be jarring. They give us an intimacy with a character but tend to stop the action cold. Close-ups and extreme close-ups obliterate background; they pull the characters out of the set and setting (fig. 4.22). They offer characters alone in their thoughts (or somehow cut off from others). This impression of isolation is why close shots are used so frequently in horror films, because characters in such films often find themselves alone with a monster. For registering emotions conveyed primarily through the eyes, the extreme close-up is a powerful tool (fig. 4.23).

It is important to understand and appreciate how camera distance affects how we see a shot and by extension how we are likely to read that shot. If the camera is placed far away, we get a more complete view of the geography in play, but we don’t get a good look

at the characters who occupy that space. We need to see them better for that—the camera needs to get us closer for that. When a camera is placed close up to its subject, we recognize and appreciate that we have been granted access; we can read the characters’ faces, which then key us to what they’re thinking or how they’re feeling at that precise moment. But despite such access, when the camera is close to its subject, we lose what the long shot gives us: context, geography, the set, as well as the setting.

4-1c Off-Screen Space

We have looked at how camera angle and distance play a role in the framing of the image on screen. The frame—which film theorists describe as the “arbitrary rectangle” formed by the boundaries of the movie screen—positions us as viewers of the *mise-en-scène*, governing our perspective on a scene. This perspective, importantly, depends a lot on what we see and how the filmmaker has chosen to show it to us. But as is often the case, what we can’t see (and maybe want to, maybe need to, to feel better or simply understand a scene more fully) can be important as well.

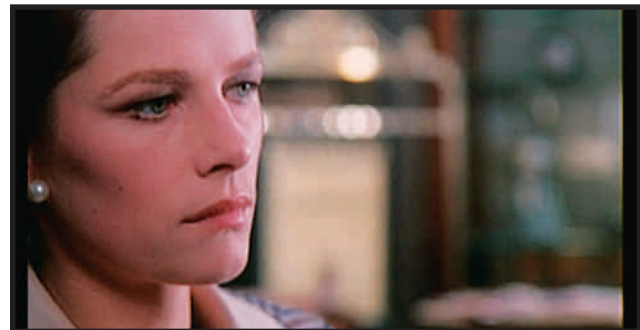
Alfred Hitchcock was especially adept at using **off-screen space** in his suspense films. In the famous shower scene in *Psycho*, for example, the very limitations of the frame heighten the suspense. In the shower, Hitchcock isolates Marion in the lower right portion of the frame (fig. 4.24). The remainder—that is, the space surrounding the subject, often called negative space—is empty and undefined.

What exists on the other side of the curtain (the off-screen space) is what concerns us here. But we wait . . . the essence of suspense, after all, are things suspended, actions delayed. And then, entering from outside the frame and from outside the bathroom, we see a figure filling the space on the other side of the opaque curtain, knife at the ready (fig. 4.25). Hitchcock cuts to the killer, and now Marion is in the off-screen space. Here off-screen space implies point of view; we are seeing the killer as Marion does, and we experience the menace along with

off-screen space The space in a scene that the audience cannot see but knows to contain someone or something of importance to the story.



4.21 A close-up in D. W. Griffith’s 1920 melo-drama *Way Down East*. Note the beautiful use of blue tinting in the shot, which was the result of dipping the positive print in a dye.



4.22 A close-up of the actress Charlotte Rampling in Liliana Cavani’s *The Night Porter* (*Il portiere di notte*, 1974). Note how the close-up (and the evocative use of selective focus, discussed later in this chapter) pulls the character out of her surroundings.



4.23 An extreme close-up draws our attention to the longing in Bonnie’s eyes in Arthur Penn’s *Bonnie and Clyde* (1967).



4.24 The famous shower scene in *Psycho* (Alfred Hitchcock, 1960). Note how the empty space, screen left, cries out to be filled.



4.25 The killer enters the bathroom prepared to strike. The impact of this image depends on what we know to exist outside this frame: Marion, nude and defenseless in the shower.



4.26 Here the close-up on Marion screaming suggests bodily injury that we imagine or envision but can't see because that portion of her body is off screen.

her. The next shot in this sequence shows Marion in an extreme close-up, screaming in pain and fear (fig 4.26). This shot's impact comes from what we can see (Marion's face) but also what we can't see (the killer). Our imagination supplies an image of her wounded body, while the fact that we can't see her attacker heightens our anxiety.

When we watch a movie, we by necessity focus on framing on the go. Some images stick in our minds more than others, but it is important to appreciate that the framing of each shot is the result of conscious choices about camera angle, distance, and on-screen/off-screen space.

4-2 CAMERA MOVEMENT

Early cinema is distinguished by moving images captured by a stationary camera. But it was only a matter of time before someone figured out how to make the camera move and still attain focused, watchable images. One of the first moving-camera sequences comprises the entire 3-minute running time of the 1903 film *The Georgetown Loop*. The filmmakers placed a camera on a train car and filmed a particularly dramatic run of tracks in the Colorado Rockies (fig. 4.27). Among the sights were a handful of no doubt chilly passengers waving at the camera from the observation stand of the caboose and, as the train navigated the various switchback turns, the front cars.

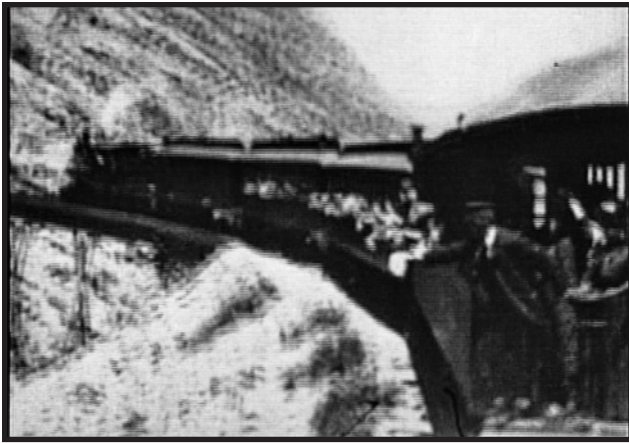
There is no plot or apparent point to the film except the gee-whiz factor produced by moving the camera. At least initially, the moving camera produced a new sensation for a new medium. Eventually it would be used not only for sensational effect but also to allow us as

filmgoers to enter and move around in the space of the film more fully.

4-2a The Tracking Shot, Dolly Shot, and Steadicam

In the century or so since the introduction of the moving camera, filmmakers have developed a number of ways to move the camera though the set, including mounting it on a dolly (a cart) that can then be moved across tracks that the camera crew puts down (fig. 4.28). The result of this moving-camera technique is called a **tracking shot**. A

tracking shot A shot produced with a camera that moves smoothly alongside, behind, or ahead of the action.



4.27 Camera movement circa 1903. *The Georgetown Loop*.



4.28 The camera crew executes a tracking shot during an action sequence in the fifth installment of the *Fast and Furious* series, *Fast Five* (Justin Lin, 2011). Tracking shots allow for the smooth capture of a shot from the side of, in front of, or behind the action.



4.29 Shooting a Steadicam sequence during the production of Terrence Malick's *Tree of Life* (2011).

slightly modified version of the tracking shot is the dolly shot, a more modern technique in which the dolly moves freely along the floor (absent tracks). Though it is imprecise, the term *tracking shot* is often used to describe any



4.30–4.32 A moving-camera shot begins with a handshake outside the Copacabana nightclub and ends three minutes later with Henry and Karen seated at a table up close to the stage. This is just one of several bravura moving-camera sequences in *Goodfellas* (Martin Scorsese, 1990).

shot that moves smoothly alongside, behind, or ahead of the action, even when a track is not used.

A third technique used to attain fluid camera movement was introduced in 1976: the Steadicam shot. Essentially a stabilizing apparatus worn by a camera operator, Steadicam delivers the image steadiness of a tracking or dolly shot in spaces where a dolly isn't practical, such as on stairs, through crowded rooms, and in the shallow end of the ocean (fig. 4.29).

Moving-camera shots are used to “open up” cinematic space, to present a dynamic view without resorting to a stationary long shot or a series of cuts. Director Martin Scorsese is known for using moving camera



4.33 The opening image—close-up of a bomb being set—in Orson Welles’s *Touch of Evil* (1958). Camera movement takes us from this first image, through the streets of the border town and the border checkpoint, to the explosion of this device in a car traveling from Mexico to the United States.



4.34 The plot of the film hinges on the identity of the bomber, but we see him only from behind and from a distance.

to expose the setting for a film’s story more fluidly. In *Goodfellas*, the gangster Henry takes his new girlfriend Karen to the Copacabana nightclub where, she and we discover, he’s a VIP. The moving-camera sequence (executed by the film’s Steadicam operator) introduces Karen and the viewer to a wondrous new world—a new world that begins with a handshake (and a big tip) outside the club, continues as we walk in through a service entrance and venture through the kitchen (where everyone knows Henry), and ends at a table set up just for them at the very edge of the stage (figs. 4.30–4.32). At the end of this moving-camera shot, Karen is suitably impressed (as are we); she discovers, as Scorsese himself described the shot, that all doors are open to Henry. She is seduced by Henry, by the Copacabana, and by a new lifestyle. We are seduced as well, by the exhilarating camera movement that carries us into Henry’s world.

One of the most famous moving-camera sequences in film history opens Orson Welles’s *Touch of Evil*. This nearly four-minute **long take**—a term used to describe a particularly long duration of screen time between two



4.35 A crane shot shows us a man and a woman entering the car, clearly unaware that a bomb is in the trunk.



4.36 As the car heads towards the border crossing, it passes by a Mexican policeman and his American wife. Both of their lives will be impacted by the explosion that punctuates this opening moving-camera shot.

cuts—begins with the setting of a bomb in the trunk of a car (fig. 4.33 and 4.34). Once the bomb is set and placed in the car, Welles executes a dramatic **crane shot** that takes us over a block of buildings to an adjacent street (fig. 4.35). The crane then drops the camera down to a less dramatic high angle where a tracking shot follows the doomed car as it passes by the film’s hero (a Mexican policeman who investigates the crime) and his wife, who will become the target of a Mexican gang and a crooked American policeman (fig. 4.36).

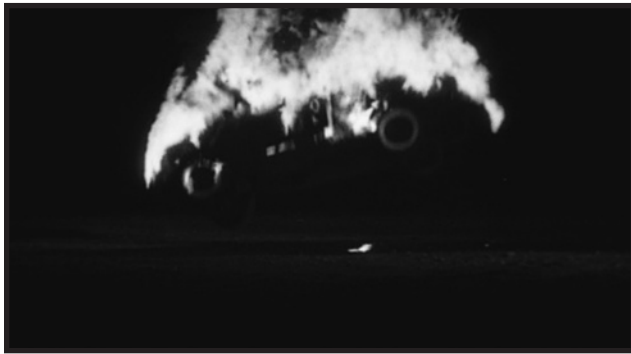
A street-level camera tracks the car and the policeman and his wife as they all meet up at the border crossing (fig. 4.37). Like all good opening sequences, this one introduces the principal characters and brings them

long take A single continuous shot of unusually long duration.

crane shot An aerial or overhead shot executed by a camera operator on the platform of a moving crane.



4.37 When the woman in the car says, “I’ve got this ticking noise . . . in my head,” no one pays attention . . . except us.



4.38 We watch for nearly four minutes before Welles cuts to the second shot in *Touch of Evil*.

briefly together. By happenstance their lives have suddenly intersected, a meeting-up that is punctuated as the tracking shot finally ends. We hear the sound and then cut to the image of the car exploding on screen (fig. 4.38).

The challenge in executing such a long and complicated moving-camera sequence is that the entire shot can be ruined by a single mistake such as a flubbed line of dialogue or a light or wire or crewmember caught in the shot as the camera moves through the set. There is a complicated choreography for the actors and crewmembers, all of whom have to be in synch with the camera.

4-2b Subjective Camera

When following an entrance into a magical new space, as in *Goodfellas*, or a chain of events, as in the example from *Touch of Evil*, the moving camera simulates third-person narrative point of view. Moving camera can also be used to approximate first-person or **subjective point of view**, so that we see the world through a character’s eyes as he or she moves through the world of the film.

subjective point-of-view shot A shot that simulates what a character sees.



4.39 The opening shot of *Halloween* (John Carpenter, 1978).



4.40 Throughout the Steadicam sequence, we share the killer’s point of view.

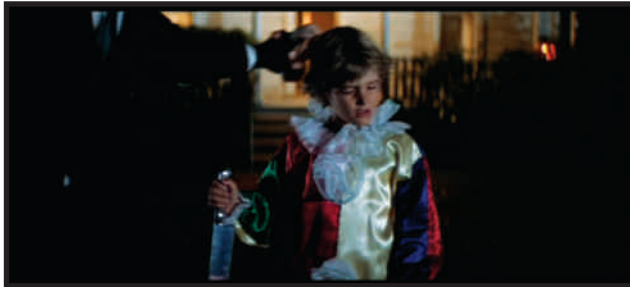


4.41 The murderous intent becomes clear.

In the horror film *Halloween*, John Carpenter opens with a moving-camera sequence from the subjective viewpoint of an unknown character. The first thing we see is what the character sees, the Myers’ house (fig. 4.39). The camera approaches the house; the Steadicam shot matches the character’s movements. We stop at the window and look in: a young woman and her boyfriend are kissing (fig. 4.40). The music and lighting signal from the start that something bad is afoot, but it isn’t until we enter the house and walk into the kitchen that we know exactly where the sequence is heading. Much as we would see our own hand as we reach into a drawer, we watch as the character’s hand enters the frame and grabs a kitchen knife (fig. 4.41). A second, similar action occurs after we ascend the stairs. We see a mask and then we see a hand reach out and grab it. The character then pauses to put the mask on, and the rest of the sequence is shot through (and thus simulates



4.42 We see what the killer sees and anticipate the violence that follows.



4.43 The subjective camera sequence gives way to a more traditional third-person viewpoint as we see the killer in his Halloween costume.

the act of looking through) the eyeholes of the mask (fig. 4.42).

We turn a corner and see a young woman, mostly undressed, brushing her hair, seated in front of her mirror. She cries out a name: “Michael.” She clearly knows her assailant and we gather he is not welcome in her room. Through the mask we watch as “Michael” attacks the young woman with the knife. Michael stabs at her relentlessly until she slumps over, bloodied and presumably dead.

We then accompany Michael back down the stairs and out the front door. The subjective moving-camera sequence ends only after we exit the house and walk to the street to meet a car that has just pulled up. We finally switch from first- to third-person point of view to see the unmasking of the assailant. The payoff is that the killer, whose point of view we have briefly shared, is just a child (fig. 4.43).

The use of subjective camera here is complex and effective. The key to the sequence is the revelation at its end—that the killer is a little boy, the victim’s brother. This secret can only be kept by taking the little boy out of the frame, by showing the scene through his eyes. Some film critics have argued that the subjective camera implicates the filmgoer in the crime. This seems a bit of a stretch. Much of the rest of the film endeavors to make clear that Michael is a monster, beyond reason or redemption. The notion that *we* are somehow *him*,

despite the analogy created by subjective camera, is not supported by the rest of the film.

4-2c Handheld Camera

Steadicam enables a filmmaker to move a camera through space and deliver fluid, moving images that can roughly simulate human sight. Another way to gain the same basic effect, albeit with noticeable camera jitter, is for the camera operator to take the camera off its tripod, track, or Steadicam and hold it by hand as he or she moves through the set. This technique became possible with the advent of lighter-weight cameras in the 1960s, the very technological development that fueled a revolution in documentary aesthetics with the *cinéma vérité* and direct cinema movements (see chapter 8-1d). Today, high-quality, low-cost digital video cameras enable fiction filmmakers to include **handheld shots** to simulate real, lived experience. Some filmmakers have used portable cameras and handheld techniques to create a more spontaneous or realistic film style, one familiar to viewers of reality television and DIY videos on the Internet.

Among the first to use this technique in fiction film were the French New Wave filmmakers of the 1960s, especially Jean-Luc Godard. The effect was in many cases more ironic than realistic as moving camera sequences matched, or more accurately deliberately mismatched, documentary filmmaking technique with fictive genre content (from crime, melodrama, and comedy, for example). In *Breathless*, a simple conversation between a gangster, Michel, and his American girlfriend Patricia is presented in a three-minute handheld mobile shot along the Avenue des Champs-Élysées. The scene is at once natural and naturalized, realistic and real. But it is also in a fundamental way comically absurd.

The shot begins as Michel locates Patricia on the famous avenue. We see Patricia much as Michel does at this point, from behind, walking away (fig. 4.44). The camera moves towards her and once she stops and turns around, the camera catches up, and Michel moves into the frame (fig. 4.45). We discover at this moment that this is not a subjective camera shot, that the source of the image is not Michel. The two characters continue to walk and talk and the camera follows them. Godard is not interested in the ideal way to film their conversation. Instead he follows them from behind, making the viewer feel like a furtive eavesdropper. Though there is little doubt that we are in a fictional film, the way that

handheld shot A shot made with a portable camera that may show signs of not being mounted, such as jitter or off-center framing.



4.44 An American in Paris. *Breathless* (*À bout de souffle*, Jean-Luc Godard, 1960).



4.47 The lovers stop, but not for a kiss or an exit line.



4.45 The gangster boyfriend arrives.



4.48 Instead they turn around, a cheeky joke on film form.



4.46 Cars and people pass by; some even stare at the camera. This is filmmaking on the fly and on the sly as passersby inadvertently become part of the sequence.

the foot and automobile traffic crosses in front of the camera suggests a documentary style—an impromptu, improvised, realistic style (fig. 4.46).

In fictional films, moving-camera sequences are often capped by a significant action; the *Touch of Evil* sequence we examined earlier provides a classic example. Godard plays with the assumption that the camera is taking us from one place to another for a reason as Patricia and Michel stop in the middle of the street. He defies that expectation when they don't embrace or kiss or part company (fig. 4.47). They simply turn around and begin to walk back towards the camera, which now reverses direction (fig. 4.48). Godard is likely making a little joke on film form by not offering a dramatic payoff. In *Breathless*, the handheld camera gives the viewer the impression of witnessing something real but mostly insignificant (as most real moments are).

Though the gesture is towards a cinematic realism, in *Breathless* Godard rather cheekily calls attention to how the moving camera might function if the scene in question mattered more. But a larger commentary on film form is in play here, that modern cinema need not be tied to modes of production unique to fictional or documentary filmmaking and, by extension, that the traditional distinctions of fictional genres—gangster, melodrama, and comedy, in this case—need not apply.

A number of contemporary features use shaky handheld footage to suggest another type or style of nonfiction filmmaking: amateur production. We believe that the footage is “real” because it’s too badly produced to be fabricated, too amateurish to be “Hollywood.” The low-budget horror film, *The Blair Witch Project*, for example, tells the story of some ambitious but inept college film students making an amateur video production. The film that we watch is supposed to be footage that they shot and left behind before they “disappeared.” Handheld is used to convince us that the film was shot not by professionals (which it was) and that the footage, frightening as it may be, is real (which it is not). In the film’s climactic scene, we watch the action as if we too were looking through the camera’s viewfinder (fig. 4.49). The sloppily framed and poorly focused image is meant to enhance the realism of the handheld shot.

The same basic premise is used in the monster picture *Cloverfield* (Matt Reeves, 2008), as supposed **found footage** produced by a young man initially filming a party catches by accident a supposed real and terrifying event as it unfolds. This sort of pseudorealism—history caught quite by accident—borrows (aesthetically, at least) from the artless amateur handheld footage posted on the web, from lame dog tricks to celebrity sex tapes. *Cloverfield* also alludes to the happenstance capture of significant live events by amateur videographers and photographers, like the disturbing video shot by George Holliday of the Rodney King incident in 1991 and images of the destruction of the World Trade Center in New York City on September 11, 2001.

Used more sparingly and selectively, handheld need not be tied so to cinematic realism. In *The Bourne Supremacy* (2004) and *The Bourne Ultimatum* (2007), Paul Greengrass employs handheld technique in action sequences not so that we read these events as somehow



4.49 A deliberately amateurish canted handheld shot seen through the camera viewfinder in the stirring climax of *The Blair Witch Project* (Daniel Myrick and Eduardo Sanchez, 1999).



4.50 Handheld simulates the movement of jogging for both the character on-screen and the camera operator behind him. *The Wrestler* (Darren Aronofsky, 2008).

real (they’re not, and we know that) but to disorient us. The technique suggests events happening too fast to be captured with a stationary camera.

Handheld can also be used to simulate dizziness, queasiness, or vertigo. In *The Wrestler* we follow the film’s battered hero, Randy the Ram Robinson, into the woods for his first post-heart-attack jog. Director Darren Aronofsky employs handheld first to match the side-to-side and up-and-down movement involved in running, as the camera seems to track a few steps behind Randy (fig. 4.50), then to simulate his loss of equilibrium as he gasps for breath, dizzy by the exertion.

found footage Filmed material that is discovered and used by another filmmaker.

4-2d Pan and Tilt

The camera need not move through space in order to provide the mobile framing characteristic of moving-camera techniques. Far easier and simpler camera movement can be accomplished by panning or tilting. Unlike handheld mobile shots, for pans and tilts the camera is mounted on a tripod. And unlike tracking and dolly shots, the tripod remains fixed in place. A fluid or geared head on the tripod allows for movement 360 degrees laterally (a **pan**) and, practically speaking, vertically, floor to ceiling, ground to sky (a **tilt**). Though the techniques are quite different, it is sometimes difficult to discern a pan from a short tracking shot. Both create a mobile frame and both simulate a presence, either first- or third-person, within the space of the film. The pan (an abbreviation for *panorama*) is often used to simulate an eyeline view as if one's eyes were following an action or searching for something. Like a lateral turn of the head, the pan gives us access to a panoramic as opposed to fixed point of view.

In his 1939 comedy of manners, *The Rules of the Game*, Jean Renoir used mobile framing and shot mostly in natural light to produce a realistic picture of the French aristocracy in the last days before the onset of World War II. The film climaxes with a clever variation on the comedic theme of mistaken identity, only, instead of uniting the unlikely couple, the mistake leads to a senseless murder, one that makes clear the film's larger concerns with the entrenched conflicts between rich and poor, French and foreign-born.

The sequence begins in a garden outside the chateau. The camera pans and then pauses briefly at a greenhouse, where a hooded figure, a woman, waits (fig. 4.51). The woman is Christine, the Austrian-born wife of a French aristocrat, and she is waiting for any one of several men with whom she has dallied to join her in a clandestine exit from the chateau. The pan simulates an eyeline point of view, but it is not connected to any one character. Instead, like an omniscient third-person narrator, the camera continues to pan (fig. 4.52) and then stops as it finds two men hiding in the bushes: Marcel (a poacher who has recently taken a job as a servant at the chateau) and Schumacher (the gamekeeper and Marcel's former rival), whom we see holding a gun (fig. 4.53). When Christine meets her lover, Schumacher mistakes the couple for his own wife (Christine's servant)



4.51 The camera pans and stops briefly at the greenhouse in *The Rules of the Game* (*Le règle du jeu*, Jean Renoir, 1939).



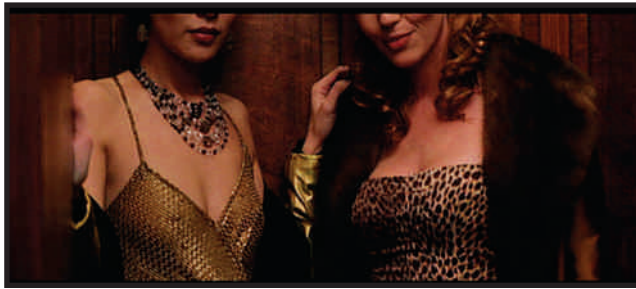
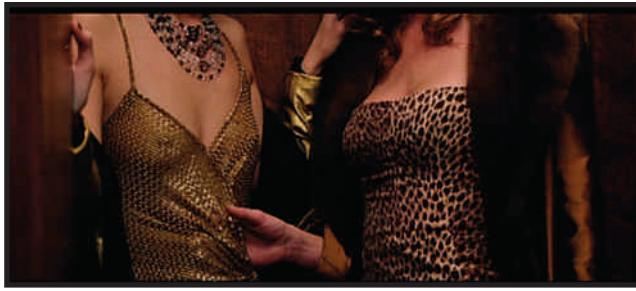
4.52 The camera continues to pan as if looking for something.



4.53 The camera finds what it's looking for: two men who furtively await the clandestine meeting in the greenhouse.

pan A lateral camera movement along an imaginary horizontal axis.

tilt An upward camera movement along an imaginary vertical axis.



and her supposed lover and shoots. The joke, dark as it may be here, is that, despite the pan and its simulation of human sight, one cannot always trust what one sees.

Tilts seem less natural and thus more dramatic than pans if only because the vertical action of scanning from foot to head or head to foot in real life is pretty rude. Indeed, tilts often simulate the act of sizing someone up or assessing someone's attributes, so to speak. In *The Devil's Advocate*, John Milton, the mysterious head of a law firm, tempts Kevin Lomax, a junior associate, with a clandestine after-hours "meeting" with two beautiful women in his penthouse apartment. Lomax turns Milton down, but a simple camera gesture, a tilt obviously aligned with Lomax's subjective point of view, reveals that he is interested (figs. 4.54–4.56).

The mobile framing produced by the pan and tilt simulates a roving eye. But neither is an exclusively first-person technique. Instead, both serve to naturalize camera point of view, which film theorists have called "the spectator in the text." All of these types of moving-camera and mobile framing techniques simulate a narrator in the space of the film. It is well worth acknowledging here how much we identify with the camera as it looks for or with us.

4.54–4.56 A tilt scanning the bodies of two beautiful women in Taylor Hackford's morality play, *The Devil's Advocate* (1997).

4-3 FOCUS AND DEPTH

While the camera may serve as our eyes on a scene, there are of course differences between what we see by direct observation (with our own eyes) and what a camera captures. These differences concern two key attributes of the shot: focus and depth. While the technical aspects of camera operation are beyond the scope of this chapter, it is nonetheless valuable to appreciate and understand the expressive choices made by cinematographers and movie camera operators to represent, reproduce, and manipulate focus and depth on screen.

4-3a Focal Length

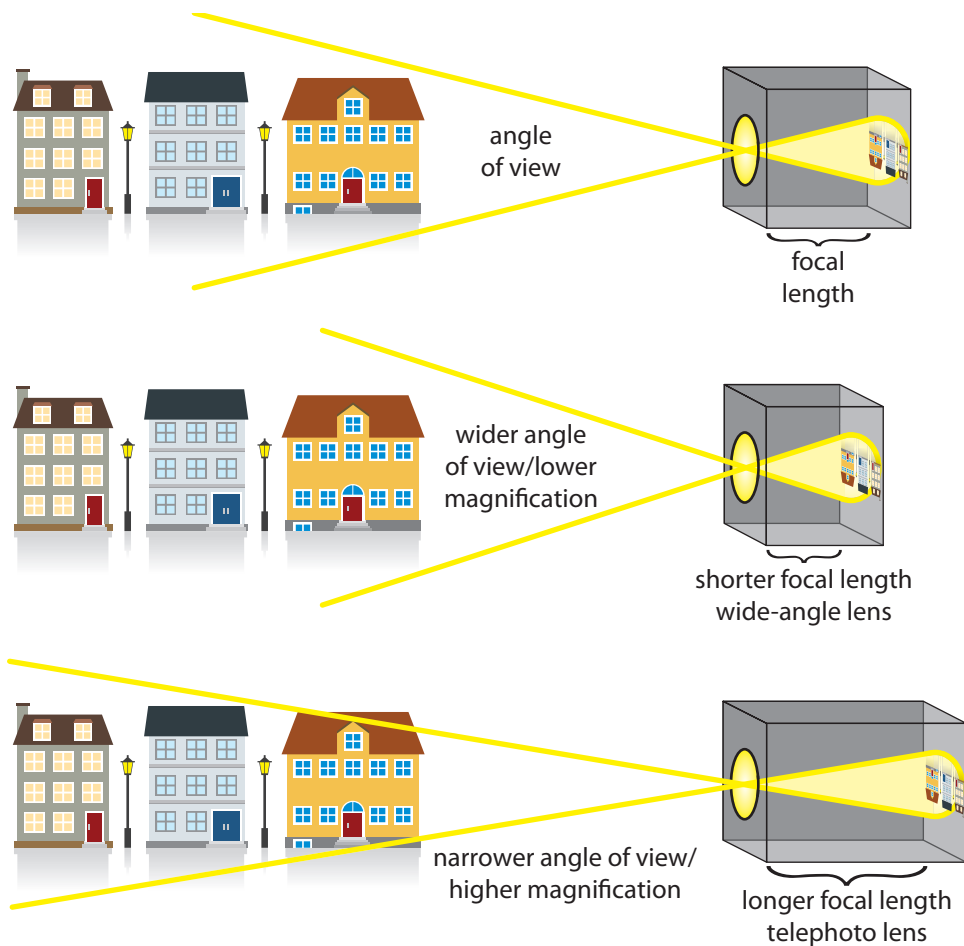
Unlike the human eye, the camera can be adjusted to "see" differently by changing the size of the lens and aperture (the iris, or opening). Lenses are generally categorized according to their focal length, technically speaking, the distance from the optical center of the lens to the

focal point where captured rays of light meet in clear and sharp focus on the film stock or video/digital sensor. The focal length of the lens determines the field of view as they are represented on the flat, two-dimensional screen. With the combination of field of view and distance from the subject, perspective of the shot is thus controlled.

The greater the focal length, the narrower the angle of view becomes (fig. 4.57). Yet with this greater length comes greater magnification, much like that of a telescope or microscope. We see less of the whole but in more detail.

Wide-angle (short-focal-length) lenses offer, as the name suggests, a wide-angle view of the subjects in the frame. In figure 4.58 from *The Wild Bunch*, a wide-angle

wide-angle lens A lens that allows for a wider angle of view and that can increase the illusion of depth within the shot.



4.57 A line drawing illustrating focal length.



4.58 A wide-angle shot from the opening sequence of *The Wild Bunch* (Sam Peckinpah, 1969).

telephoto lens A lens with greater magnification power that can make objects seem closer to the camera and that can decrease the illusion of depth within the shot.

lens allows the filmmakers to fill the frame with a horizontal group shot of some children torturing a scorpion—a resonant image foreshadowing the savagery to follow. Wide-angle shots can create a greater feeling of depth in the frame, but at a price. For example, in figure 4.59 from *The Age of Innocence*, a wide-angle lens allows us a wider view of the room that Archer enters, but it also distorts the room's dimensions, exaggerating the depth of field. A similar distortion can be seen in figure 4.5, as Welles combines the use of a wide-angle lens with low-angle camera placement.

The **telephoto (long-focal-length) lens**, with its greater magnification power, can focus clearly on objects a greater distance from the camera. Yet when the camera is placed at a greater distance, space appears to be more compressed, and characters or objects appear closer together than they really are. The telephoto lens brings into sharp focus an object or character in the frame but holding much of anything else in sharp focus at the same time is difficult. A long-focal-length lens is used extensively by Robert Bresson in his character study of a lonely thief in *Pickpocket*. This otherwise anonymous and insignificant man is serially brought into relief as he moves among the crowds in Paris (fig. 4.60).

Telephoto shots are often used to simulate or represent surveillance, sometimes quite literally showing us what a character in the film sees as he or she peers through a telescope (as in Brian DePalma's *Body Double*, 1984) or a camera with a telephoto lens (as



4.59 We accompany Archer into the first in a succession of anterooms. The wide-angle shot allows us a fuller view of the room but at the same time distorts its dimensions. *The Age of Innocence* (Martin Scorsese, 1993).



4.60 A long-focal-length lens isolates Michel, a petty thief, to make him appear alone despite the crowd. *Pickpocket* (Robert Bresson, 1959).



4.61 Telephoto shots can be furtive, as in this shot of a girl caught by the camera hiding behind a curtain in *Cries and Whispers* (*Viskningar och rop*, Ingmar Bergman, 1972). Here again only the object of the camera's gaze—the little girl—is held in sharp focus.

in Hitchcock's *Rear Window*, 1954; see figs. 5.62–5.66 in the following chapter). Even when the telephoto is not used so literally, it can nonetheless have a furtive, voyeuristic quality as in figure 4.61, a stunning telephoto shot in Ingmar Bergman's *Cries and Whispers*, which accompanies an internal monologue about a little girl hiding behind a curtain.

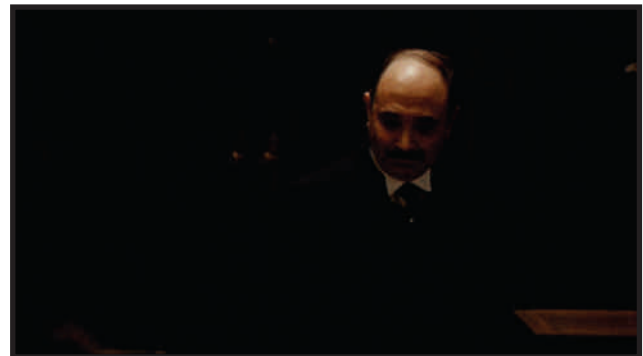
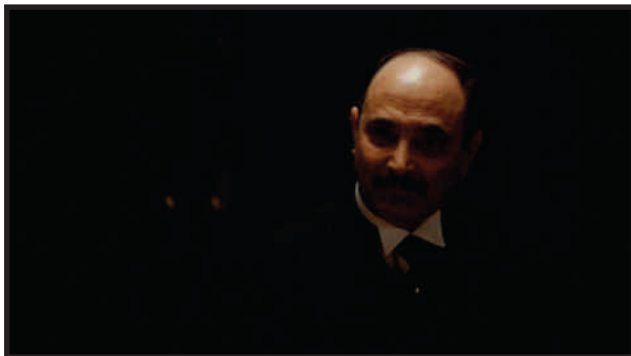
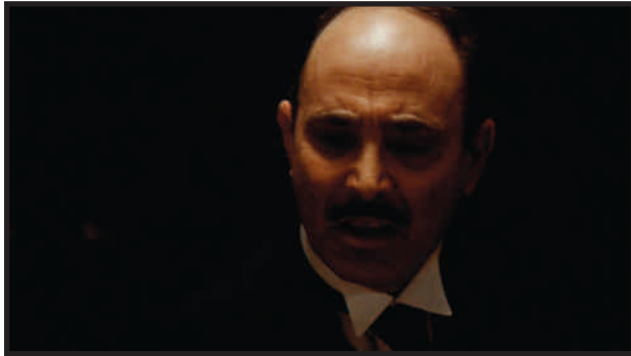
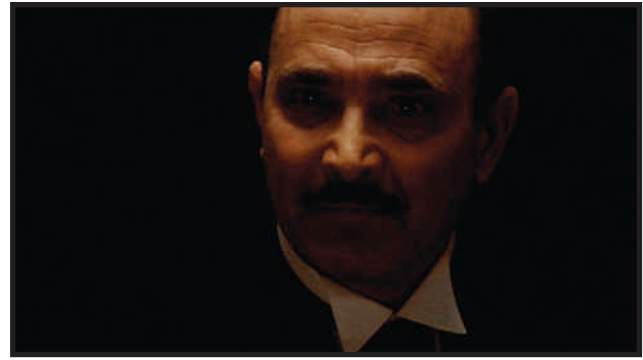
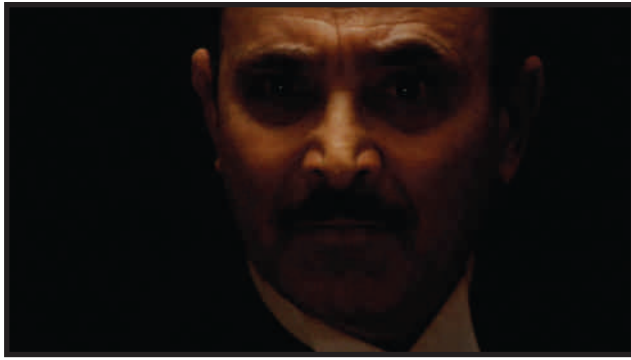
Another type of lens used by filmmakers is the **zoom (variable-focal-length) lens**. Though the camera remains stationary, a variable-focal-length lens simulates movement, either lengthening (a

zoom-out) or diminishing (a zoom-in) the *apparent* distance between the camera and its subject.

One of the most famous zooms in American film history accompanies the opening monologue in Francis Coppola's *The Godfather*. The film begins with a close-up on Amerigo Bonasera, an undertaker, as he delivers the film's famous opening line, "I believe in America," then backs away (and opens up) to offer a first glimpse at the Corleone family's seductive and secretive world. The shot lasts for over two minutes and benefits from a computer-timed zoom lens that adjusts incrementally to simulate camera movement (figs. 4.62–4.67).

As if to provide a counterpoint to the opening zoom-out in *The Godfather*, in his next film, *The Conversation*, Coppola begins with a three-minute zoom-in on Union Square in San Francisco on a sunny afternoon (figs. 4.68–4.72). The zoom-in simulates a search for something or someone in the frame. In *The Conversation*, a film about illicit surveillance and the routine invasions of privacy enabled by sophisticated video and audio equipment, such a search sets us up for the cat-and-mouse games that compose most of the rest of the film. The opening zoom begins with a long shot that establishes the setting: San Francisco. As the camera zooms in closer, we start to distinguish individuals. First, there is the mime, Coppola's nod to Michelangelo Antonioni's *Blow-Up* (1966), a similarly plotted film that ends with mimes "playing tennis." As the camera continues to give us a closer view, we see a man pass by the mime drinking a cup of coffee. Later we will

zoom lens A lens with a variable focal length that can lengthen (zoom out) or diminish (zoom in) the apparent distance between the camera and its subject.



4.62–4.67 The zoom-out at the start of *The Godfather* (Francis Ford Coppola, 1972).

meet this man: he is Harry Caul, an audio surveillance expert with an obsession about his own privacy. The mime follows Harry through the square, mimicking his walk and his every sip from the coffee cup. Harry does not like the attention; he is a private guy. He finally ditches the mime, and the shot ends as Harry nervously exits the square alone.

4-3b Depth of Field

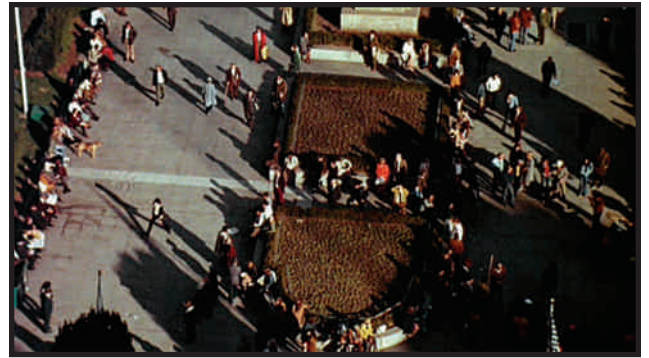
Another variable under the control of the cinematographer concerns depth of field, which refers to how much

deep focus Describes a shot where both the foreground and background planes are in sharp focus.

of the foreground, middle ground, and background planes are held in focus. The larger the range within the frame between the closest and furthest object held in focus, the larger the depth of field.

Deep focus (large depth of field) involves keeping objects and characters from the foreground through the background in sharp focus. Filmmakers accomplish this look by using short-focal-length or wide-angle lenses, a narrower aperture, faster film (which can produce sharp images in lower light), and well designed and executed mise-en-scène (especially lighting techniques that strategically illuminate different portions of the frame differently).

Deep-focus sequences were introduced in a number of late 1930s Hollywood films. In *Wuthering Heights*, the depth-of-field work was so compelling it won an Oscar for its cinematographer, Gregg Toland (fig. 4.73). Two years



▶ **4.68–4.72** The three-minute zoom-in that opens *The Conversation* (Francis Ford Coppola, 1974).

later, working with the director Orson Welles on *Citizen Kane*, Toland used deep focus far more extensively. For Welles, shots composed in depth were “democratic,” in that they allowed filmgoers to focus on any part of the image they wished and to find in either foreground or background dramatic moments worth watching. For his actors, deep focus meant that everyone in the frame might be the object of the filmgoer’s eye even if that person was not speaking or performing a significant action.

A famous example of deep focus can be found in an early scene when we first meet Charles Foster Kane as a young boy playing in the snow in Colorado (fig. 4.74). Three fields are in sharp focus in the shot. We see Kane’s mother and the banker, Thatcher, his new guardian, in the foreground. Kane’s father, who is left out of the decision-making process, is alone, in the middle ground. And young Charles blithely carries on in the background, oblivious to the decisions made on his

behalf in the rest of the frame. Though we are looking at a two-dimensional image, Welles successfully stages and films the scene to imply depth. Key to this impression of depth is the diminishing scale of the figures and objects; note, for example, how tiny Kane is compared to his mother and how small the objects next to the window are compared with those on the desk.

In **selective focus**, by contrast, one field or plane within the image is in sharp focus while other fields appear out of focus. In *The Assassination of Jesse James by the Coward Robert Ford*, selective focus is used to highlight larger-than-life figures like Frank and Jesse James. Early in the film, we find Frank James weary of the outlaw life. He suffers fools badly, and, unfortunately

selective focus Describes a shot where part of the image has been deliberately blurred while another is in sharp focus.



4.73 Deep-focus composition in *Wuthering Heights* (William Wyler, 1939) allows us a clear view of both Heathcliff's dramatic departure and the woman he will leave behind.



4.74 Deep focus in an early scene in Orson Welles's *Citizen Kane* (1941).

for him, the ragtag “gang” assembled for one last train robbery is composed mostly of fools. Frank is feeling isolated and anxious, a sensation highlighted by selective focus (fig. 4.75).

Later in the film, Jesse avenges a (probably imagined) betrayal. His victim, the dimwitted Ed Miller, knows he is about to be killed. Ed moves into focus at the very moment Jesse retreats to the deep background, obscured in the dark and rendered small and indistinct (fig. 4.76). Jesse is descending into madness by this point in the story, and the selective focus here and elsewhere establishes a visual referent for his paranoia and feelings of isolation and depression.

A technique known as **racking focus (pulling) focus** enables filmmakers



4.75 Frank James's isolation is highlighted by selective focus in *The Assassination of Jesse James by the Coward Robert Ford* (Andrew Dominik, 2007).



4.76 Selective focus dramatically captures the moment of truth in the murder of Ed Miller.

racking focus Describes a shot where the focus shifts among foreground, middle ground, and/or background planes.



4.77 and 4.78 Early on in *The X-Files* (Chris Carter, 2008), a racking-focus shot highlights the different mind-sets of the film's two lead characters, the scientific Scully (in focus in fig. 4.78) and the intuitive Mulder (in focus in fig. 4.77).

to shift sharp focus from one plane to another without a cut. The filmmaker first shows one plane in the shot

we will eventually have to side with only one of these characters and her or his philosophy.

(foreground, for example) in sharp focus and another (background, for example) out of focus. Racking focus then allows the filmmaker to shift the focus rather quickly and accurately.

Racking, or pulling, focus is an intrusive camera technique; it calls attention to itself and clearly guides our eyes as we read the shot. Filmmakers resort to racking focus when they want to make a comparison (usually between characters), to show incompatibility (e.g., that while one is held in sharp focus the other is not or that the two characters can't be held in focus at the same time because they're so different) or to emphasize spatial relationships (between objects or characters in the foreground and background).

Early on in *The X-Files*, a racking-focus shot is used to highlight the different mind-sets of the film's two lead characters, the scientific Scully and the intuitive Mulder (figs. 4.77 and 4.78).

As this focus technique suggests,

4-4 STOCK, EXPOSURE, COLOR, AND EFFECTS

In addition to the filmmaking options we have examined so far, decisions regarding film stocks (or abandoning film for video), camera exposure settings, and camera types (35mm, 16mm, Super-8mm, video, digital video) also significantly affect what we see and how we see it. The basic and fundamental decision to shoot in color or in black-and-white affects the look of the film and how viewers are likely to read the images on-screen. In-camera effects governing speed of motion—for example, slow, fast, and stop-motion—are also in the arsenal of the filmmaker to alter the look of the film. Also relevant here is frame size, the aspect ratios

of width to height in the movie image (1.66:1; 1.85:1; 2.35:1, etc.). Aspect ratios are discussed separately and at length in chapter 7-3b.

4-4a Film Stock

Filmmakers can choose from a variety of film stocks. Stocks are differentiated according to the specific chemical properties of the emulsion (the ratio of silver halide to gelatin in the mix on the film). Using a different film stock (with a different emulsion) can allow a filmmaker to produce more or less contrast in the image. When

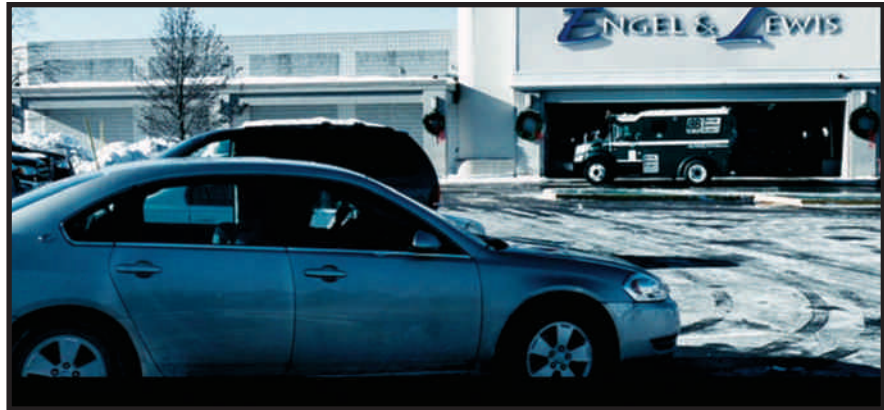
shooting in color, it may also allow for more vivid or saturated colors. Color can also be manipulated when the film is developed at the lab.

In the crime drama *What Doesn't Kill You*, the film opens and closes with an armored car heist. The stock used for these two sequences highlights cold colors like silver and blue; it seems well chosen to heighten the feeling of a cold winter's day in New England (fig. 4.79). It seems also well chosen to mark the way the heist plays out; this opening sequence ends in the cold light of day, or so the film stock renders things, as one of the robbers faces off with a police officer in a gunfight that seems sure to end badly for everyone concerned. Most of the rest of the film is shot on different stock, one that highlights warmer tones of brown and orange (fig. 4.80). This distinction in color scheme achieved by using different types of film stock proves significant when we return to the heist the second time near the end of the film. At first it seems—it no doubt is—the exact footage and film stock we saw at the opening of the film. So we are led to assume that the rest of the film has been just a flashback leading inevitably to this fateful event. But then we discover why we are seeing this scene a second time and why the alternative stock has been used to distinguish it from the rest of the film. The heist is revealed to be a daydream, and in the end it is what the hero decides *not* to do. The scene looks different from the rest of the film because it never happens.

4-4b Exposure

Exposure refers to the amount of light that passes through the camera lens onto the film. Underexposure produces dark images and **overexposure** produces the

overexposure A technique that creates a washed-out image by bathing the film in excessive light.



4.79 Film stock highlights cold blues, grays, and silver in the opening scene of *What Doesn't Kill You* (Brian Goodman, 2009).

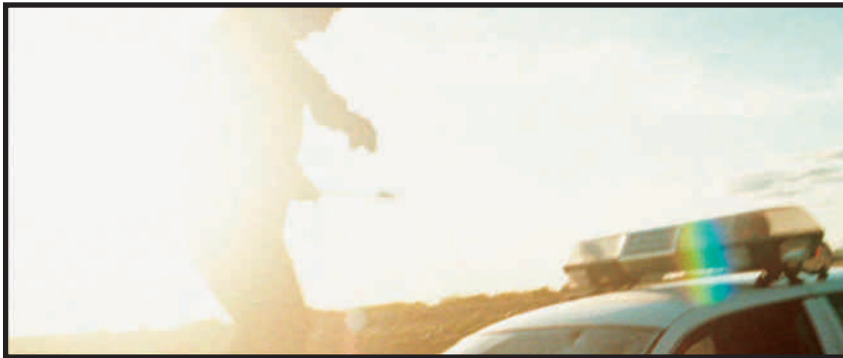


4.80 Most of the rest of the film is told in warmer tones of brown and orange, the result of using a different film stock.

opposite: pale, washed-out images. Adjusting exposure to a slight degree can subtly lighten or darken an image to achieve a certain style or look or to highlight figures or objects in the frame. More extreme manipulations of exposure setting can produce dramatic effects, as in Jennifer Lynch's Sunbelt murder mystery *Surveillance*, in which overexposures are used to establish the sun-drenched locale and conceal the identities of the murderers (figs. 4.81–4.83).

4-4c Digital versus Film

Digital cameras are now frequently used instead of 35mm-film cameras. The digital format is cheaper, faster, and easier to work in. Digital filmmaking was initially used for mock or fake documentaries, ultra-low-budget features, and made-for-cable miniseries. Today



► **4.81–4.83** Overexposure in Jennifer Lynch’s 2008 desert Sunbelt murder mystery *Surveillance* establishes the sun-drenched space and sets up the surreal scenes of murder and mayhem to follow. Overexposure in the murder scene effectively conceals the identity of the killers.

many high-end productions—even high-profile, effects-laden features like *Sin City* (Frank Miller, Robert Rodriguez, and Quentin Tarantino, 2005) and the *Star Wars* (George Lucas, 1999, 2002, and 2005) prequels—are shot in digital format.

This is all to say that digital camera work has come a long way in a short amount of time. The ultra-high-res digital Red One camera, introduced in 2008, for example, records with a resolution roughly equivalent to the industry standard 35mm film. With so much

exhibition turned to digital technology (see chapter 7), it is fair to wonder how long filmmakers will be, strictly speaking, making *films* . . . how long before the term *film* will refer not to a raw material but less distinctly to a medium no longer based on that raw material. Despite the ease, cost-effectiveness, and comparable resolution of digital “cinema,” many cinematographers contend that digital images tend to be more clinical—that they lack depth, grain, and gradations or decay in color values.

That said, for the average filmgoer, it may not be that important to recognize whether a filmmaker has used a 35mm film or digital camera. But occasionally filmmakers create sequences from images that are clearly derived from different sources (evidencing different stocks, exposure settings, cameras, and camera types). The effect, as in the opening sequence of Oliver Stone’s *Natural Born Killers*, can be at once visually arresting and intellectually challenging, in effect asking the filmgoer to ponder not only the content but the source of the image as well (figs. 4.84–4.87).

4-4d Color and Black-and-White

The first color-process films date to the 1930s. But for the subsequent thirty years most movies were photographed on black-and-white film. Early color processes were unrealistic, expensive, and a bit unpredictable. And many of the early color prints faded and degraded horribly. The industry-wide shift to color dates not to the advent of improved color stock and film processing in the 1950s but to the advent of color television in the following decade. The film studios were loath to allow the upstart medium to have anything that seemed like an advantage.

The choice between shooting in color or in black-and-white in modern American films is seldom a matter of budget; in many cases black-and-white stock costs

as much as or more than color film. Instead, it is an aesthetic choice that can have a significant impact upon filmgoers' reactions to a film.

When modern filmmakers choose black-and-white, they do so with a number of goals in mind: to allude to films of earlier eras (*The Artist*, Michel Hazanavicius, 2011 or *Ed Wood*, Tim Burton, 1994), to establish a setting (e.g., a time characterized by black-and-white cinema and TV: *good night, and good luck*, George Clooney, 2005), to establish a monochromatic visual style (e.g., the shimmering slate-grey New York in *Manhattan*, fig. 4.88), to simulate a bland lifestyle (the urban hipster ennui of *Stranger than Paradise*, Jim Jarmusch, 1984), or to, ironically, imply a cinematic realism (Scorsese's effective use of black-and-white to simulate newspaper sports photography—figs. 4.90 and 4.91—and home movie footage in *Raging Bull*).

When we talk about color, it is important to note the impact of various film stocks and camera exposures (discussed above). It is also important to recognize how observable uses of color affect film content—how shading, intensification, or saturation (*color tone*) as well as color contrasts affect the style and meaning of a film. Most if not all color films evince a color scheme that can embrace alternatively dramatic contrasts or, at the other extreme, an extremely limited palette emphasizing one tone (which we call a monochromatic color design, apparent in fig. 4.80). Color can also be an aspect of the larger design of a film. In *Far from Heaven*, for example, the mise-en-scène (sets, locations, props, costumes, and even the characters' hair colors), cinematography (lighting, film stock, exposure, and camera type), and post-production lab work combine to create a sumptuous color scheme (fig. 4.89).

4-4e Speed of Motion

Camera effects like stop, fast, and slow motion compose what filmmakers call **speed of motion**. These camera effects are created by filming action at faster or slower speeds and then projecting the sequences at standard speed. Changes in speed of motion interrupt the flow of a film and are sometimes used to call our attention to certain physical actions or to attributes of the actor performing these actions, as in the athletic training sequences

speed of motion A camera-based special effect that makes the action on screen move at unrealistic speeds (fast, slow, or briefly paused, or stopped). Speed-of-motion effects are created by filming action at faster or slower speeds and then projecting the images at standard speed.



4.84–4.87 Four exterior images from the title sequence of *Natural Born Killers* (Oliver Stone, 1994): grainy black-and-white with little contrast; sharply focused and high-contrast black-and-white; low-contrast color landscape with red tinting; and vivid color (note how the sign is held in sharp relief to the beautiful blue sky).



4.88 Black-and-white evoking a shimmering, timeless New York in Woody Allen's *Manhattan* (1979).



4.89 In *Far from Heaven* (Todd Haynes, 2002), the color of the changing autumn leaves and the lush lawns is roughly matched by the women's costumes and hair colors. Note also that the red truck parked on the street in the background roughly matches the color of one of the dresses and some of the leaves at screen right.

in *Chariots of Fire* (Hugh Hudson, 1981) and *Personal Best* (Robert Towne, 1982). Slow motion can be used to suggest a dreamlike quality, distinguishing by speed of motion between reality and an imagined time and space.

In *Raging Bull*, Martin Scorsese uses stop and slow motion to highlight the more poetic aspects of the so-called sweet science of boxing and to make clear at the same time the spectacular nature of such a modern gladiatorial sport. At one point Scorsese uses overexposure with stop-motion to reproduce a classic sports snapshot (seemingly captured with exploding flashbulbs) of a knockdown (fig. 4.90) and then in a separate bout he uses slow motion to underscore a fighter's exhaustion and resignation (fig. 4.91).

Fast (sped-up) motion is used most often for comic effect to show time passing quickly, or, more seriously, in time-lapse photography. Filmmakers also use fast motion in montage sequences (see chapter 5-1d) to connect or summarize a series of connected or repeated actions, as in Darren Aronofsky's *Requiem for a Dream* (Darren Aronofsky, 2000) when a series of sped-up shots depicting a woman taking her daily diet pills fly across the screen. It can also be used like slow motion



4.90 Scorsese uses overexposure and stop-motion to frame a knockdown much as a sports (still) photographer might. *Raging Bull* (1980).



4.91 Slow motion and a canted camera angle underline a fighter's resignation to exhaustion and defeat.



4.92 When Hutter enters the land of the phantoms en route to the vampire's castle in *Nosferatu* (F. W. Murnau, 1922), the basic rules of physics are abandoned. Fast motion signifies the transition from real to supernatural space.

to signal a transition from the real to the supernatural world, as in *Nosferatu*, when the sped-up movement of a carriage marks its passenger's entrance into the land of the phantoms (fig. 4.92).

CHAPTER SUMMARY

Our view of the *mise-en-scène* is carefully controlled by the camera, which governs our perspective on a scene and allows us to enter and move around in the space of the film.

4-1 CAMERA PLACEMENT

Learning Outcome: *Recognize and analyze the basics of camera placement: angle, distance, and framing.*

- When we talk about the angle of a shot, we refer to the placement of the camera in relation to the subject and not the position of the subject of the shot. The angle can influence a range of perceptions about a subject.
- Camera distance affects how much of the subject we see and controls our ability to read a character's face and understand the larger context.
- Framing positions us as viewers of the *mise-en-scène* and governs our perspective.
- Our perspective is additionally affected by what we can see (on-screen space) and what we can't (off-screen space).

4-2 CAMERA MOVEMENT

Learning Outcome: *Identify different types of camera movement and discuss their aesthetic and narrative significance.*

- There are three principal types of *fluid* moving camera shots: the tracking shot, the dolly shot, and the Steadicam shot.
- Moving camera can also be used to approximate first-person or subjective point-of-view, so that we see the world through a character's eyes as he or she moves through the world of the film.
- Some filmmakers have used portable cameras and hand-held techniques to create a more spontaneous or realistic film style.
- For pans and tilts the camera is mounted on a tripod. A fluid or geared head on the tripod allows for movement 360 degrees laterally (a pan) and, practically speaking, vertically, floor to ceiling, ground to sky (a tilt).

4-3 FOCUS AND DEPTH

Learning Outcome: *Understand and detail the key aspects of focal length, depth of field, and selective focus.*

- Lenses are generally categorized according to their focal length, with wide-angle as the shorter focal length and telephoto as the longer focal length.

- Though the camera itself remains stationery, a variable focal length lens can be used to simulate movement, either lengthening (a zoom out) or diminishing (a zoom in) the *apparent* distance between the camera and its subject.
- Depth of field refers to how much of the foreground, middle ground, and background planes are in focus. Deep focus (large depth of field) involves keeping objects and characters from the foreground through the background in sharp focus.
- Deep focus (large depth of field) involves keeping objects and characters from the foreground through the background in sharp focus.

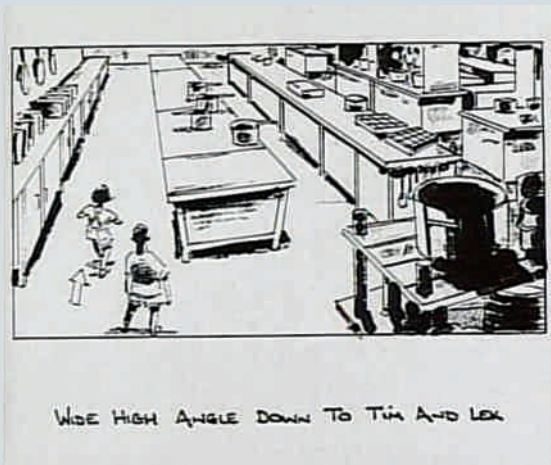
4-4 STOCK, EXPOSURE, AND EFFECTS

Learning Outcome: *Recognize how the choice of film stock, speed, and exposure affects the look of the film.*

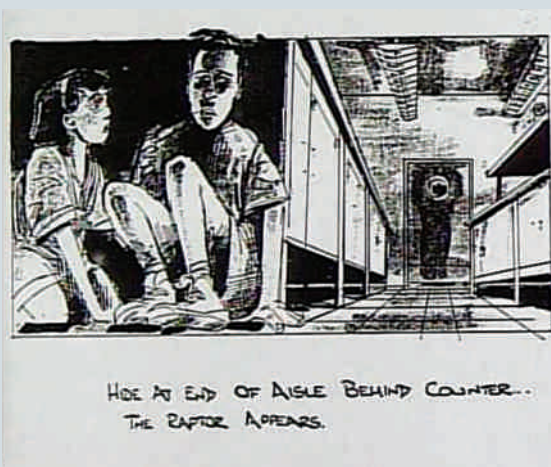
- Using a different film stock (with a different emulsion) can allow a filmmaker to produce more or less contrast in the image.
- Exposure refers to the amount of light that passes through the camera lens onto the film. Under-exposure produces dark images and over-exposure produces pale, washed-out images.
- The choice between shooting in color or black-and-white is an aesthetic choice that can have a significant impact upon how filmgoers react to and read a film. Shading, intensification, or saturation (what is called *color tone*) as well as color contrasts affect the style and meaning of a film.
- Fast, slow, and stop motion camerawork interrupt the natural flow of a film and are often used to highlight action, a change in location or setting (e.g. from natural to supernatural), or a performer's particular attributes or talents.

FOCUS on Camera Work: *Jurassic Park*

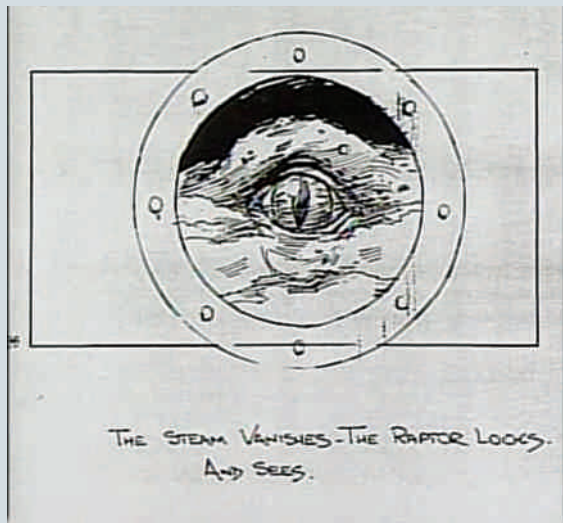
Before filming begins on a movie, the director and the design team may adapt portions of the screenplay into storyboards, which are hand-drawn or computer-generated shot-by-shot breakdowns that offer pictorial renderings of scenes. The following storyboard sketches were used for the memorable “raptors in the kitchen” scene in *Jurassic Park* (Steven Spielberg, 1993). Note how the storyboards consider elements of mise-en-scène and camera work that we have been examining. The corresponding shots from the movie are included for comparison.



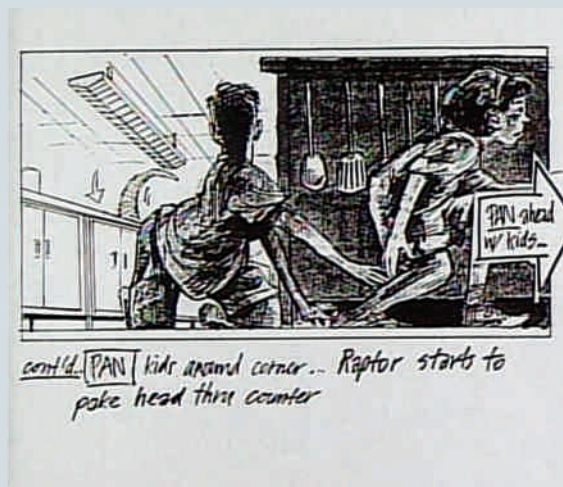
The basic set design is sketched out here. What purpose might there be for the long counters and aisles? Note the camera instruction: “wide high angle down to Tim and Lex.” Why might the filmmakers choose a high-angle camera position and a wide-angle lens?



“Hide at end of aisle behind counter . . . the raptor appears.” How does this blocking add to the tension in the scene?



"The steam vanishes. The raptor looks. And sees."
A visual effect—steam—is planned. Why show steam and then the eye? How might the concept of off-screen space be relevant here?



"Pan. Kids around corner . . . Raptor starts to poke head thru counter. (arrow) Pan ahead with kids."
Moving camera captures this game of cat-and-mouse.

ANALYZE CAMERA WORK

Use these questions to analyze how the basic elements of camera work contribute to a close reading of a scene in a film.

4-1 CAMERA PLACEMENT

- How does the angle of the camera placement affect your view and the meaning of the image?
- How does camera distance affect your view and the meaning of the image?
- How does the framing of the image affect its meaning?
- Does off-screen space add to your understanding of the shot?

4-2 CAMERA MOVEMENT

- How does the camera move through the cinematic space? Does it glide smoothly through the space or is it obviously handheld? How does the crane movement affect your view and the meaning of the shot?
- Does the camera pan and/or tilt? If so, how does this technique affect the meaning of the scene?
- Is the camera objective or does it seem to represent the point of view of a character? If the latter—if it is subjective—what effect does that have?

4-3 FOCUS AND DEPTH

- What kind of focal length or angle of view does the camera lens appear to offer on the scene? Is it wide-angle, telephoto, or zoom? Does it switch back and forth within the scene? How does this lens affect your view and the meaning of the shot?
- Notice which planes (foreground, middle ground, and background) of the image are held in focus. How does the focus influence the mise-en-scène and your reading of the shot?

4-4 STOCK, EXPOSURE, AND EFFECTS

- Is the film in black-and-white or in color? If it is a contemporary film shot in black-and-white, what does that choice suggest?
- If in color, are the colors especially vivid or saturated? What impact does this effect have on your reading of the shot?
- Does the shot use overexposure and/or slow, fast, or stop-motion to dramatic effect? What is gained (with regard to aesthetics and content) by using this technique?